

Caution: Parts can be damaged by electrostatic discharge. Keep parts in their containers until needed. Ensure you are properly grounded when touching static-sensitive components.

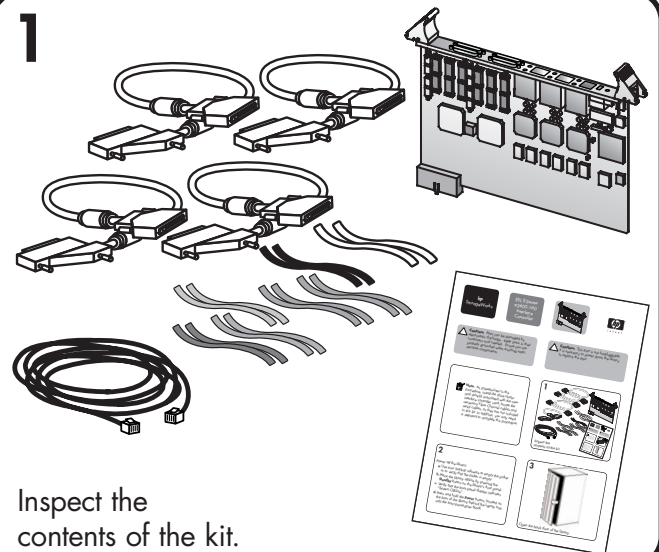


Caution: This part is not hot-pluggable. It is necessary to power down the library to replace this part.



Note: As prerequisites to this procedure, install the drive cluster and drive(s) associated with the new interface controller card; locate the necessary Fibre Channel cables and serial cables, as they are not included in this kit. In addition, you may need a stepstool to complete this procedure.

1

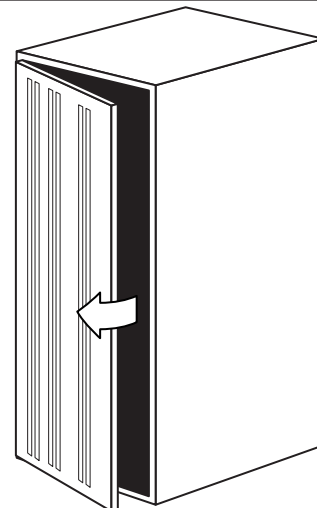


2

Power off the library.

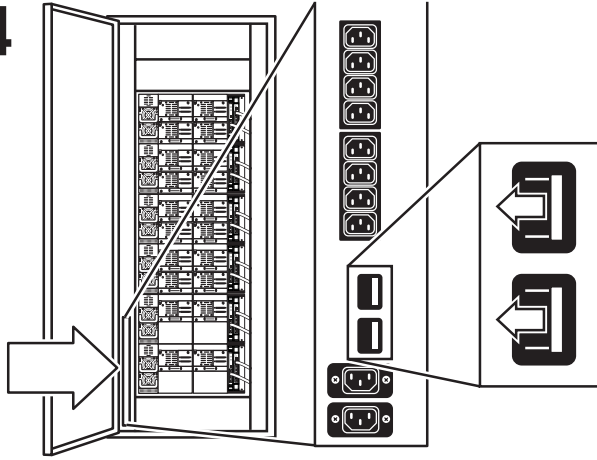
- Use your backup software to empty the picker or to verify that the picker is empty.
- Place the library off-line by pressing the **Standby** button on the library's front panel.
- Verify that the front panel display indicates "System Off-line".
- Press and hold the **power** button, located on the front of the library behind the laptop tray, until the front panel goes blank.

3



Open the back door of the library.

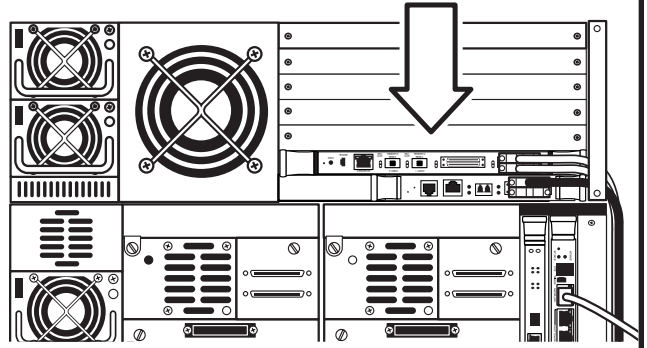
4



Flip the two breaker switches off (to the left) at the power distribution unit.

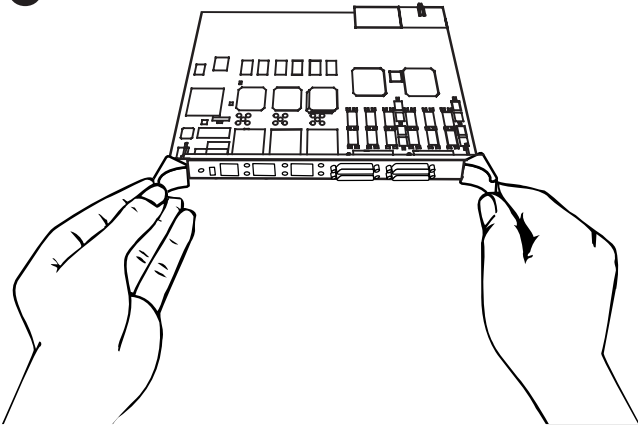
5

Card Installation



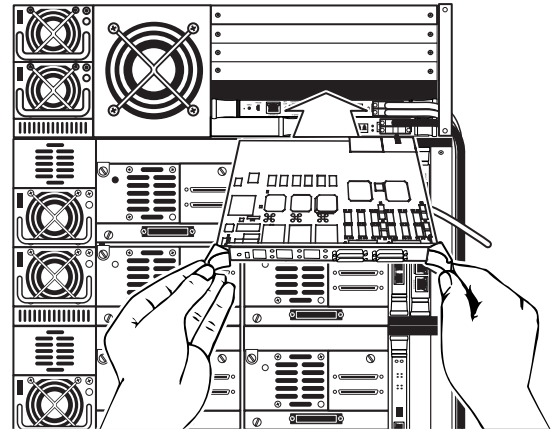
Using a #2 Phillips screwdriver, remove the blank plate from the next available of the top six slots in the card cage.

6



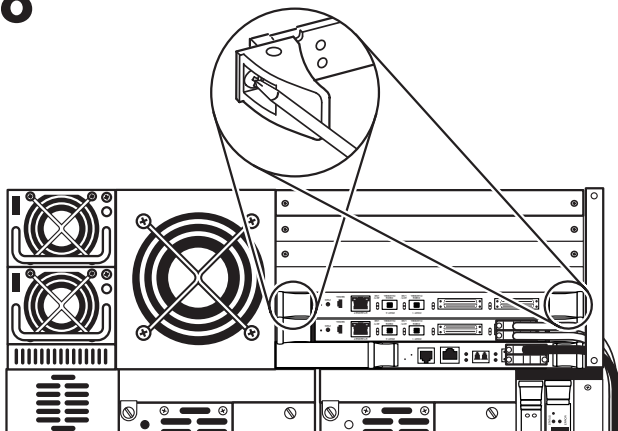
Hold the new controller's ejector handles so they extend towards the outer edges of the controller.

7



With the SCSI ports located to your right as you face the back of the library, slide the controller into the now-open slot in the card cage.

8



Tighten the captive screws on the new interface controller to secure it to the library.

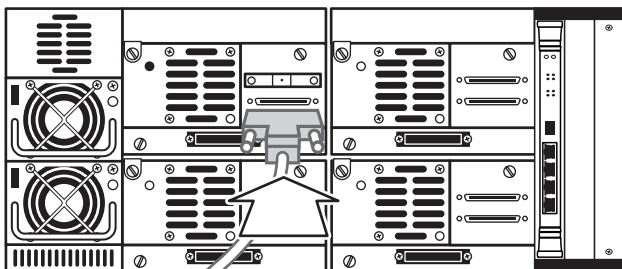
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SCSI Configuration

Drive	SCSI Port
D	3
B	1
C	2
A	0

Plan to connect the SCSI cables first to the drive, then to the controller in the following order: drive D to SCSI port 3, drive B to SCSI port 1, drive C to SCSI port 2, drive A to SCSI port 0.

10

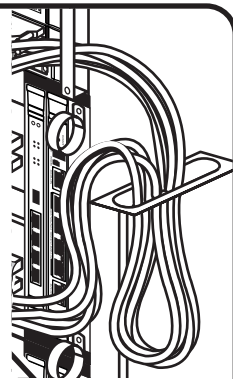


Connect the lower-density end of the SCSI cable to the lower SCSI port on the drive then, using a flathead screwdriver, tighten the screws to secure the cable to the drive port.

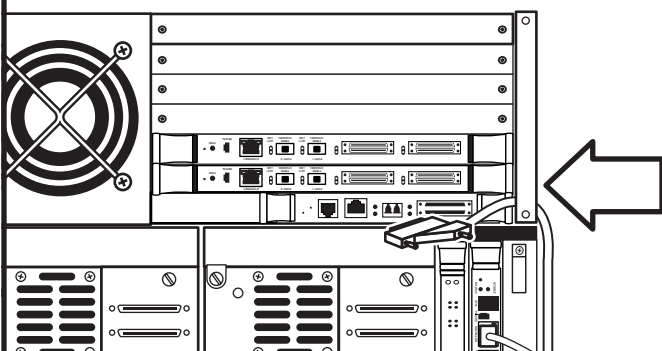
11

Route the cable through the cable access holes in the sheet metal on the right of the library cabinet.

For drive clusters 0 through 2, dip the excess cable length down into the upper cable access hole. For drive clusters 3 through 5, route the cables up through the lower and upper access holes. Push the first set of cables to the back of the library to create space for additional cables. This will help prevent the cables from becoming tangled.

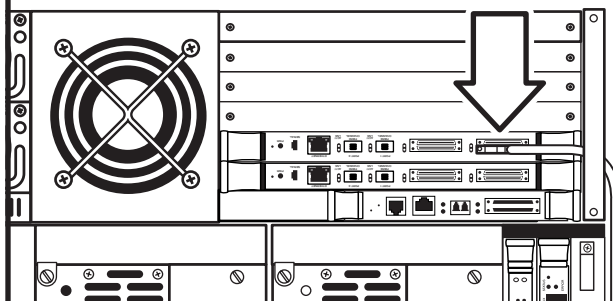


12



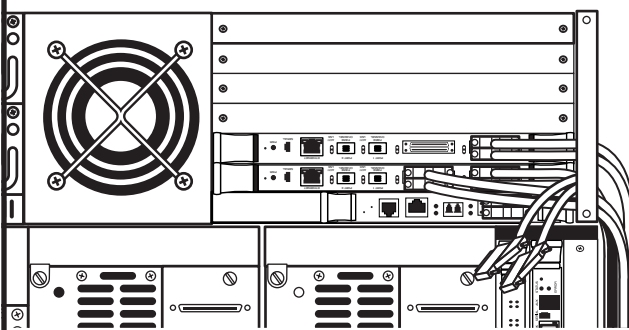
Continue routing the cable up through the cable restraint bracket located to the right of the card cage.

13



Connect the high density end of the SCSI cable to the appropriate SCSI port on the new controller card, pulling the cable toward you to ensure there is enough slack in the cable to fit the cable connector to the port. Tighten the left screw first.

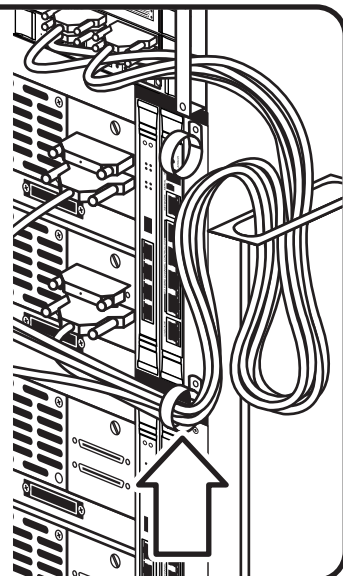
14



Connect all four SCSI cables in the same manner. If you have fewer than 4 drives, route cables and leave the cables unconnected at this time.

15

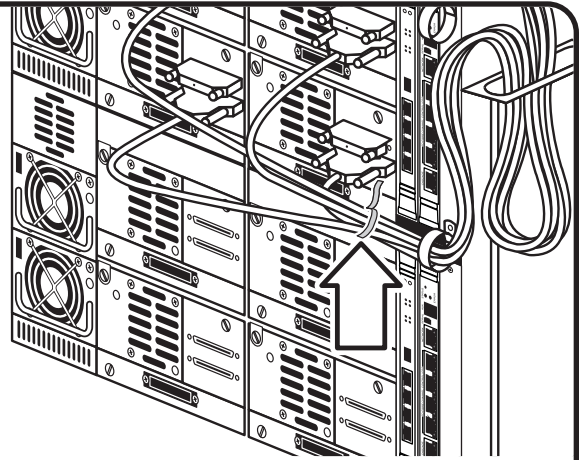
Locate the cluster cable clamp on the lower right corner of the cluster frame. Using a #2 Phillips screwdriver, remove the screw from the clamp. Place the cables in the clamp, then secure the clamp to the cluster frame by replacing the screw.





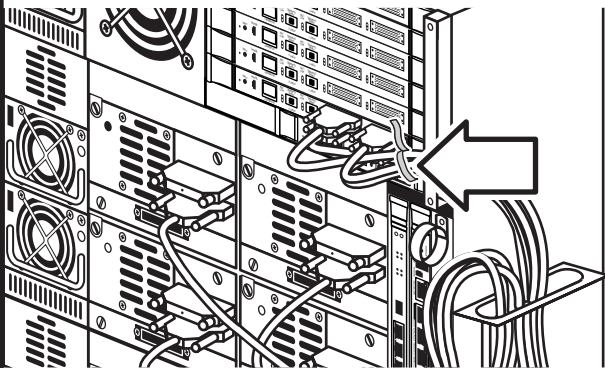
Note: Each e2400-160 Interface Controller ships with six different-colored pairs of tie wraps. Each color set should be used to designate a different drive cluster. If you have multiple sets of the same color, do not use them within the same library. Colors help identify which SCSI cables are associated with which cluster.

16



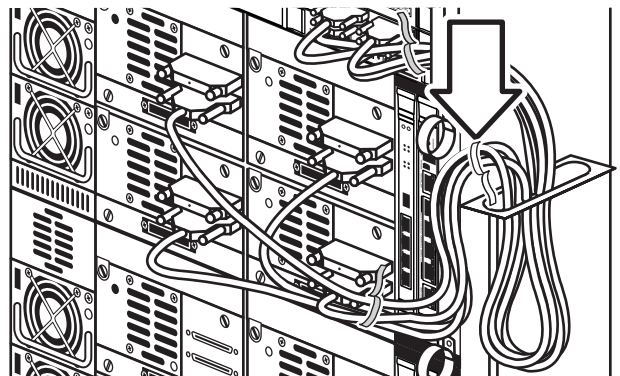
Using one color-coded tie wrap, secure the four SCSI cables together between the cluster cable clamp and the SCSI ports.

17



Using the other tie wrap of the same color used in step 16, secure the four SCSI cables together between the cluster cable restraint bracket and the SCSI ports.

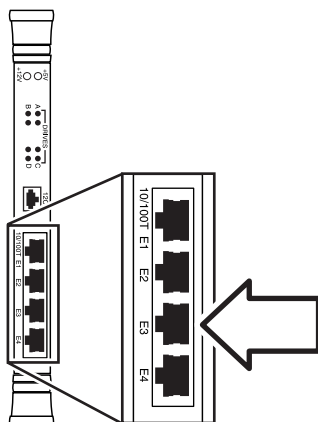
18



Using one white tie wrap, secure the SCSI cables for one cluster together near the cable access holes in the sheet metal on the right of the library cabinet.

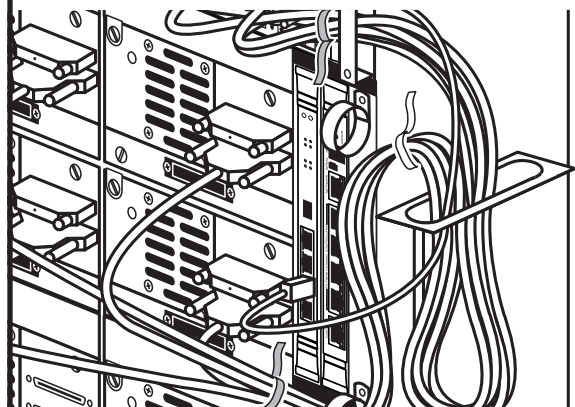
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Ethernet Cable Connection



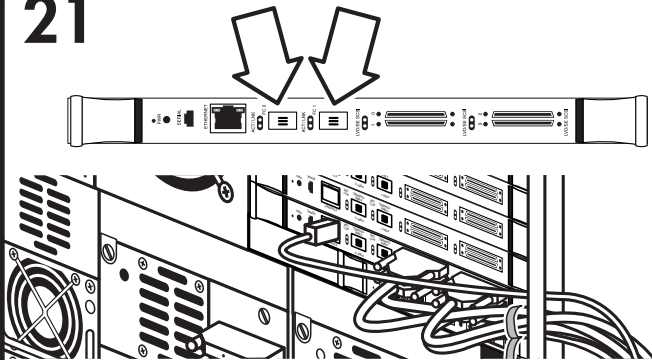
Connect the Ethernet cable to the cluster controller card at port "E3."

20



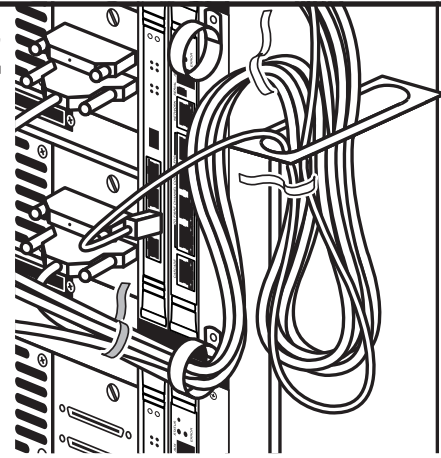
Route the cable through the cable access holes on the right side of the library.

21



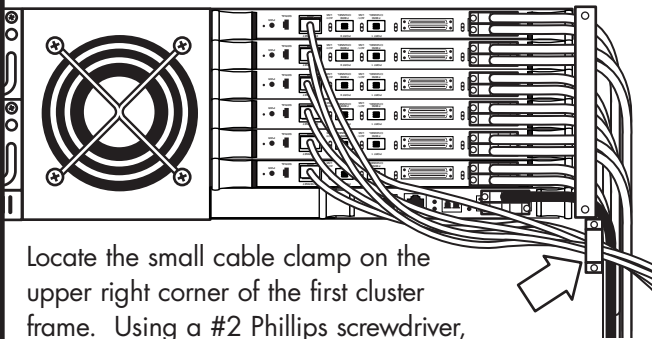
Connect the cable to the Ethernet port on the corresponding e2400-160 interface controller. For example, connect the cluster controller card in drive cluster 0 to the interface controller in slot 0 of the card cage.

22



If necessary, loop the cable and bind it with a white tie wrap in the cable channel to help take up any slack.

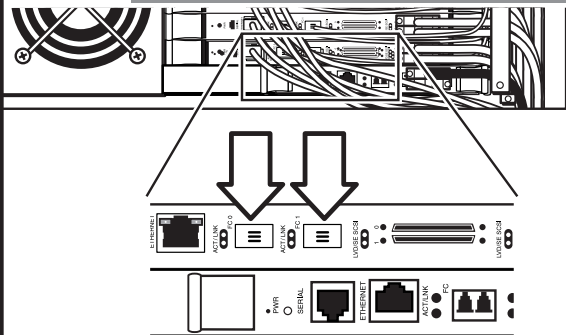
23



Locate the small cable clamp on the upper right corner of the first cluster frame. Using a #2 Phillips screwdriver, remove the screw from the clamp. Place the Ethernet cables in the clamp, then secure the clamp to the cluster frame by replacing the screw.

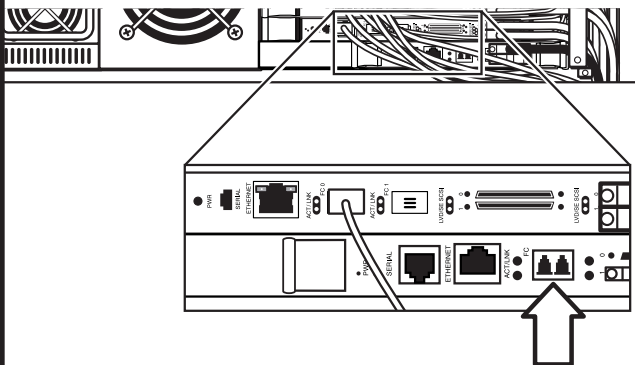
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Fibre Channel Cable Connection



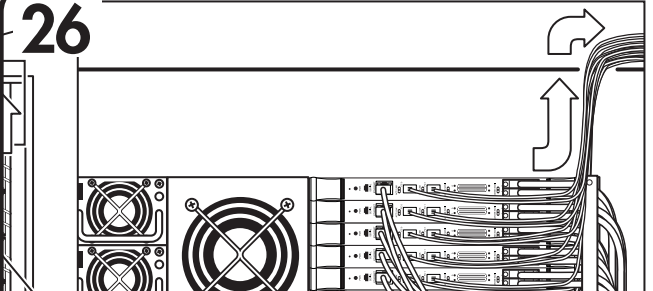
Attach a Fibre Channel cable (one for every two drives) to the e2400-160 interface controller. If you are only attaching one cable, attach it to port 0.

25



Attach a Fibre Channel cable to the e1200-160 robotics controller card located below the e2400-160 interface controller(s) in the card cage.

26

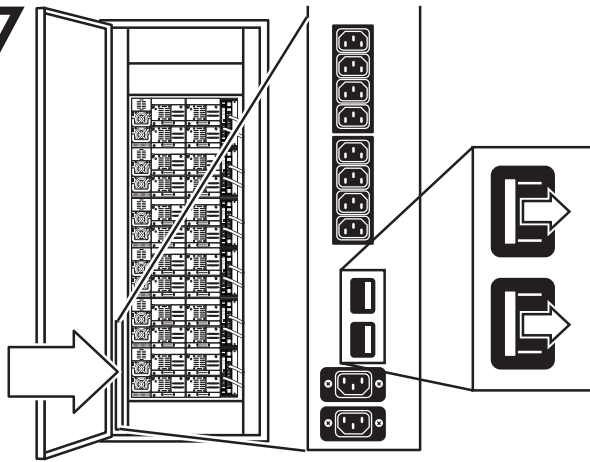


Route the cable(s) through access holes on the top or bottom of the library cabinet and to a switch or an HBA.



Note: If necessary, refer to the *HP StorageWorks ESL E-series Tape Library Unpacking and Installation Guide* for detailed cabling configurations.

27



Flip the two breaker switches on (to the right) at the power distribution unit.

28

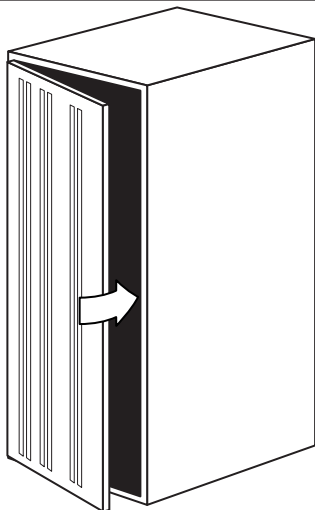
Power on the library.

- Verify that power cables are firmly in place.
- Press the power button located behind the laptop tray.
- After several seconds, verify that the current state of the library appears in the System State display on the front panel ("System On-line" or "System Off-line").



Note: To change the state, press the **Standby** button on the front panel. This toggles the library between on-line and off-line states.

29



Close the back door of the library.

30

Configuration

Refer to the *HP StorageWorks Interface Manager and Command View ESL User Guide* for detailed procedures on configuring the controller.

Getting help

- HP product information:
<http://www.hp.com/products/tapestorage>
- HP technical support and phone numbers:
<http://www.hp.com/support>
- HP StorageWorks Library and Tape Tools (L&TT) diagnostic software:
<http://www.hp.com/support/tapetools>
- Interface Manager and HP StorageWorks Command View ESL:
<http://www.hp.com/support/cvesl>

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